



BILLING CODE: 4140-01-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Government-Owned Inventions; Availability for Licensing

AGENCY: National Institutes of Health, Department of Health and Human Services.

ACTION: Notice

SUMMARY: The invention listed below is owned by an agency of the U.S. Government and is available for licensing and/or co-development in the U.S. in accordance with 35 U.S.C. 209 and 37 CFR part 404 to achieve expeditious commercialization of results of federally-funded research and development. Foreign patent applications are filed on selected inventions to extend market coverage for companies and may also be available for licensing and/or co-development.

ADDRESSES: Invention Development and Marketing Unit, Technology Transfer Center, National Cancer Institute, 9609 Medical Center Drive, Mail Stop 9702, Rockville, MD, 20850-9702.

FOR FURTHER INFORMATION CONTACT: Information on licensing and co-development research collaborations, and copies of the U.S. patent applications listed below may be obtained by contacting: Attn. Invention Development and Marketing Unit, Technology Transfer Center, National Cancer Institute, 9609 Medical Center Drive, Mail Stop 9702, Rockville, MD, 20850-9702, Tel. 240-276-5515 or email ncitechtransfer@mail.nih.gov. A signed Confidential Disclosure Agreement may be required to receive copies of the patent applications.

SUPPLEMENTARY INFORMATION: Technology description follows.

Title of invention:

Synthetic Human-Derived Peptides and Peptidomimetics for Cancer Therapeutics

Keywords: Rpn13, selective proteasome inhibitor, proteasome ubiquitin receptors, (competition: carfilzomib and bortezomib too toxic, resistance developed), solid tumors, hematological cancer, HPV associated cancer, ovarian cancer, prostate cancer, gastric cancer, breast cancer, or colorectal cancer

Description of Technology:

FDA approved 26S proteasome inhibitors, such as carfilzomib and bortezomib (Velcade®) have proven to be effective at treating hematologic cancers. However, resistance to these agents as well as their toxicity have raised concerns and highlight the need for new 26S proteasome inhibitors.

Investigators at the NCI's Structural Biophysics Laboratory have developed a new class of proteasome inhibitors. They are hRpn2-derived peptides capable of specifically targeting the Pru domain of hRpn13. Disruption of the Rpn2/ Rpn13 interaction inhibits proteolysis by a mechanism that differs from those of the approved proteasome inhibitors.

Potential Commercial Applications:

- New class of proteasome inhibitors, targeting hRpn13 of the regulatory particle.

Value Proposition:

- Synergistic with, and more specific than, known proteasome inhibitors.
- Alternate mechanism of action compared to approved proteasome inhibitors.

Development Stage:

Discovery (Lead ID)

Inventor(s):

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Intellectual Property:

HHS Reference No. E-278-2015/0-US-01

US Provisional Application 62/222,530 (HHS Reference No. E-278-2015) filed September 23, 2015 entitled “Human RPN2 Derived Peptides Useful For Treating Cancer”.

Publications:

1. Lu X., et al., 2015 PLoS One 2015 Oct 14;10(10) PMID: 26466095.

Contact Information:

Requests for copies of the patent application or inquiries about licensing, research collaborations, and co-development opportunities should be sent to John D. Hewes, Ph.D., email: john.hewes@nih.gov.

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